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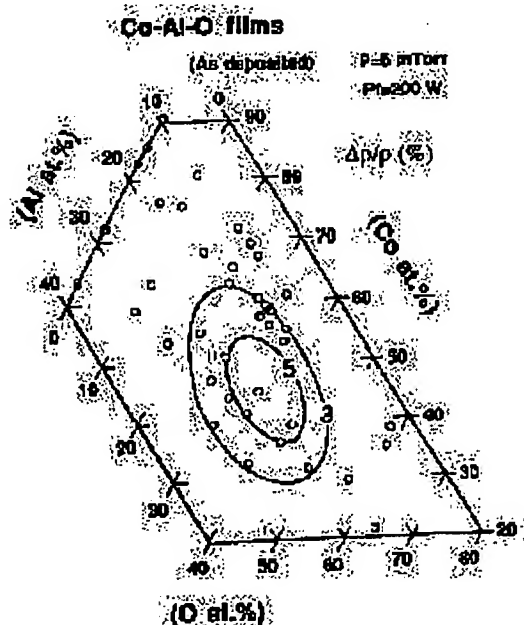
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## (54) HIGH-ELECTRIC RESISTIVITY MAGNETIC THIN FILM

### (57)Abstract:

PURPOSE: Not only to obtain a magnetic thin film of Co, Al, and O or a multilayered film composed of the magnetic thin films which is high in electrical resistivity, large in magnetoresistive effect at a room temperature, and high in magnetic field dependent-properties but also to provide an MR head and an MR sensor made thereof.

CONSTITUTION: A magnetic thin film is represented in composition by a general formula,  $\text{Co}_{100-x-y}\text{Al}_x\text{O}_y$ , wherein composition ratios  $x$  and  $y$  are so set as to satisfy formulas.  $10 < x < 30$ ,  $20 < y < 50$ , and  $30 < x+y < 70$ . Furthermore, the magnetic thin film is doped with a small amount of impurities and possesses a magnetoresistive effect of 3% or more at room temperature.



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